

Listing of Claims

1. (Currently Amended) A method of controlling a packet call in a mobile communication system, comprising:

registering packet call filtering information for storage in a database, the packet call filtering information including a plurality of combinations of packet-pattern attributes, each combination having assigned a different security classification and identified based on whether predetermined information is stored in a call filter attribute field, each combination further including different arrangements of said attributes;

receiving a packet addressed to a subscriber as a destination,

determining whether to set a call connection of the received packet based on a comparison of attribute information of the received packet and the plurality of combinations of packet-pattern attributes included in the registered packet call filtering information;

activating one of a rejection filter or a permission filter based on information stored in the packet call filtering information; and

setting the call connection according to a result of determination and the activated filter, wherein the rejection filter blocks setting of the call if the comparison of the attribute information of the received packet matches one of the plurality of combinations of the packet-pattern attributes, and the permission filter blocks the call to be set if the comparison of the attribute information of the received packet does not match any of the plurality of combinations of the packet-pattern attributes.

2. (Previously Presented) The method of claim 1, wherein the packet call filtering information includes information indicating whether to activate use of a packet call filtering function.

3. (Canceled)

4. (Canceled)

5. (Previously Presented) The method of claim 1, wherein the packet-pattern attributes include at least one of a specified source Internet protocol (IP), a specified protocol identifier (ID), or a destination port number.

6. (Previously Presented) The method of claim 1, wherein the attribute is recorded in a header of the received packet.

7. (Previously Presented) The method of claim 6, wherein the packet-pattern attributes include a source address and subnet mask.

8. (Previously Presented) The method of claim 6, wherein the packet-pattern attributes include a protocol number (IPv4) attribute and a header (IPv6) attribute.

9. (Previously Presented) The method of claim 6, wherein the packet-pattern attributes include a destination port range.
10. (Previously Presented) The method of claim 6, wherein the packet-pattern attributes include a source port range.
11. (Previously Presented) The method of claim 6, wherein the packet-pattern attributes include an Internet Protocol Security (IPSec) security parameter index (SPI).
12. (Previously Presented) The method of claim 6, wherein the packet-pattern attribute-patterns include a type of service (TSO) (IPv4) and a traffic class (IPv6) and mask.
13. (Previously Presented) The method of claim 6, wherein the packet-pattern attributes include a flow label (IPv6).
14. (Previously Presented) The method of claim 1, wherein the packet call filtering information is included in static information of a gateway general radio service (GPRS) support node (GGSN).

15. (Previously Presented) The method of claim 1, wherein registering the packet call filtering information comprises:

receiving a packet call filtering information message from a mobile terminal of the subscriber; and

registering the packet call filtering information based on the received message.

16. (Previously Presented) The method of claim 1, further comprising:

receiving at least one of a packet call filtering information inquiry or update message from a mobile terminal of a subscriber;

performing at least one of an inquiring or updating operation for the registered packet call filtering information based on the inquiry and/or update message; and

transferring a result of the inquiry and/or updating operation to the mobile terminal.

17. (Previously Presented) The method of claim 1, wherein registering the packet call filtering information comprises:

authenticating a subscriber connected through the Internet;

receiving the packet call filtering information message from the authenticated subscriber; and

registering the packet call filtering information based on the received message.

18. (Previously Presented)) The method of claim 1, further comprising:

receiving a packet call filtering information inquiry and/or update message from an authenticated subscriber;

performing at least one of an inquiring or updating operation for the packet call filtering information based on the inquiry and/or update message; and

transferring a result of inquiry and/or updating operation to the authenticated subscriber.

19. (Currently Amended) An apparatus for controlling a packet call in a mobile communication system, comprising:

a database which stores routing information and filtering information of a protocol data unit for a packet radio service, the filtering information including a plurality of combinations of packet-pattern attributes, each combination having assigned a different security classification and identified based on whether predetermined information is stored in a call filter attribute field, each combination further including different arrangements of said attributes;

a call control section which controls a call connection setting procedure for the protocol data unit based on the routing information and the filtering information, the call control section comparing attribute information of the protocol data unit to the plurality of combinations of packet-pattern attributes, and activating one of a rejection filter or a permission filter based on the filtering information;

a message processing section which performs at least one of an inquiry or update operation of the filtering information based on at least one of an inquiry message or update message of the filtering information; and

an Internet protocol processing section which processes the protocol data unit and performs the call connection setting procedure under control of the call control section.

20. (Canceled)

21. (Previously Presented) The method of claim 1, wherein the plurality of combinations include different numbers of the packet-pattern attributes or different arrangements of packet-pattern attributes.

22. (Previously Presented) The apparatus of claim 19, wherein the plurality of combinations include different numbers of the packet-pattern attributes or different arrangements of packet-pattern attributes.